AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Canceled)

2. (Currently Amended) A substrate processing method in which a substrate surface is dried by injecting it with dry gas comprising a mixture of an organic solvent vapor and an inert gas,

the substrate processing method characterized in that the dry gas is a mixture of inert gas and the organic solvent vapor, wherein the mixed gas is formed by bubbling the inert gas in an organic solvent in a vapor generating unit,

wherein the temperature in said vapor generating unit is set at T_1,

the temperature of the mixed gas containing the organic solvent and ~~the inert~~ heated inert gas is set at T_2 from the vapor generating unit to a jet nozzle, and

the temperature of ~~the dry~~ heated dry gas emitted from the jet nozzle is set at T_3,

and the temperatures are controlled such that the following relationship holds:

$$T_1 \leq T_2 \leq T_3 \leq \text{boiling point of organic solvent, and}$$

the organic solvent mist of submicron size is part of the dry gas emitted from said jet nozzle.

3. (Currently Amended) A substrate processing method in which a substrate surface is dried by injecting it with dry gas containing a mixture of an organic solvent vapor and an inert gas,

the substrate processing method characterized in that the dry gas containing the mixture of inert gas and the organic solvent vapor is further diluted with dilution gas of the same kind of inert gas, wherein the mixed gas is formed by bubbling the inert gas in an organic solvent in a vapor generating unit,

wherein the temperature in the vapor generating unit is set at T_1,

the temperature of ~~the mixed~~ heated mixed gas is set at T_2' from the vapor generating unit until the mixed gas is diluted with the dilution gas,

the temperature of ~~the dilution~~ heated dilution gas is set at T_4,

the temperature of the mixed gas containing the organic solvent and ~~the inert~~ heated inert gas is set at T_2" to the jet nozzle after the mixed gas is diluted with the dilution gas, and

the temperature of ~~the dry~~ heated dry gas emitted from the jet nozzle is set at T_3,

and the temperatures are controlled such that the following relationship holds:

$$T_1 \leq T_2' \leq T_4 \leq T_2'' \leq T_3 \leq \text{boiling point of organic solvent, and}$$

the organic solvent mist of submicron size is included in the dry gas emitted from the jet nozzle.

4. (Previously presented) A substrate processing method according to claim 2 or claim 3, characterized in that the organic solvent is at least one kind selected from a group including isopropyl alcohol, diacetone alcohol, 1-methoxy-2-propanol, ethyl glycol, 1-propanol, 2-propanol, and tetrahydrofuran, and said inert gas is at least one kind selected from a group including nitrogen, argon, and helium.

5. (Canceled)

6. (Currently Amended) A substrate processing apparatus including:

a vapor generating unit which generates a mixed gas of an organic solvent vapor and an inert gas by bubbling the inert gas in an organic solvent;

support means for supporting a plurality of substrates vertically arranged in parallel at equal pitches;

a rinsing processing vessel which accommodates the plurality of substrates supported by the support means;

a lid for covering the upper opening of said rinsing processing vessel;

jet nozzles which are provided in the lid; and

first piping which allows the vapor generating unit and the jet nozzles to communicate with each other,

the substrate processing apparatus characterized in that the first piping and the jet nozzles are respectively equipped with heaters,

wherein the temperature in the vapor generating unit is set at T_1,

the temperature in the first piping is ~~set at~~ heated to T_2, and

the temperature in the jet nozzle is ~~set at~~ heated to T_3,

and the temperatures are controlled by the respective heaters such that the following relationship holds:

$$T_1 \leq T_2 \leq T_3 \leq \text{boiling point of organic solvent, and}$$

the organic solvent mist of submicron size is part of the dry gas emitted from the jet nozzle.

7. (Previously presented) A substrate processing apparatus including:

a vapor generating unit which generates a mixed gas of an organic solvent vapor and an inert gas by bubbling the inert gas in an organic solvent;

support means for supporting a plurality of substrates vertically arranged in parallel at equal pitches;

a rinsing processing vessel which accommodates the plurality of substrates supported by the support means;

a lid for covering the upper opening of said rinsing processing vessel;

jet nozzles which are provided in the lid; and

first piping which allows the vapor generating unit and the jet nozzles to communicate with each other,

the substrate processing apparatus characterized in that a second piping is provided and connected to the middle portion of the first piping for the purpose of supplying dilution gas of the same kind of inert gas,

the first piping, the second piping, and the jet nozzles are respectively equipped with heaters,

wherein the temperature in the vapor generating unit is set at T_1,

the temperature in the first piping is set at T_2' from the vapor generating unit to the point in which it is connected with the second piping,

the temperature in the second piping is set at T_4,

the temperature in the first piping is set at T_2" from the point in which it is connected with the second piping to the nozzle, and

the temperature in the jet nozzle is set at T_3,

and the temperatures are controlled by the respective heaters such that the following relationship holds:

$T_1 \leq T_2' \leq T_4 \leq T_2'' \leq T_3 \leq$ boiling point of organic solvent, and

the organic solvent mist of submicron size is part of the dry gas emitted from said jet nozzle.

8. (Original) A substrate processing apparatus according to claim 7, characterized in that a static mixer is provided downstream from the point of connection between the first piping and the second piping and upstream in respect of the jet nozzle.

9. (Previously presented) A substrate processing apparatus described in any one of claims 6 to 8, characterized in that the organic solvent is at least one kind selected from a group including isopropyl alcohol, diacetone alcohol, 1-methoxy-2-propanol, ethyl glycol, 1-propanol, 2- propanol, and tetrahydrofuran, and said inert gas is at least one kind selected from a group including nitrogen, argon, and helium.